III. CLAIM AMENDMENTS

1. (Currently Amended) A method in a direct conversion receiver for processing a received ~~radio signals~~ signal, ~~that are modulated and centered at a carrier frequency, the modulation extending a sideband above and below the carrier frequency, the method~~ comprising ~~the steps of~~:

mixing ~~a local~~ an oscillator frequency signal with said received ~~radio signals~~ signal for generating baseband frequency signals, wherein said received signal is modulated and centered at a carrier frequency, and the modulation extends a sideband above and below the carrier frequency;

filtering out generated ~~disturbing~~ direct current (DC) components of said baseband signals centered at the zero frequency;

setting said ~~local~~ oscillator frequency signal equal to or about the carrier frequency plus an offset frequency, said offset frequency being equal to or about the difference between the carrier frequency and a null frequency, said null frequency centered at a notch of said sideband; and

centering said notch at the zero frequency of said baseband signals through mixing.

2. (Currently Amended) A direct conversion receiver for processing ~~modulated radio signals~~ a signal, ~~that are centered at a carrier frequency, the modulation extending a sideband above and below said carrier frequency, the receiver~~ comprising:

~~a means for~~at least one circuit element for receiving ~~and splitting~~ said ~~signals~~ signal, said signal being centered at a carrier frequency and has modulation extending a sideband above and below said carrier frequency ~~said means~~the at least one circuit element having a first signal output and a second signal output;

~~a local~~ an oscillator ~~means tuned to a local oscillator~~ for providing a frequency and having a first frequency output and a second frequency output, said second frequency output having a phase shift compared with said first output;

a first mixer ~~means~~ coupled to said first signal output and first frequency output for generating a baseband frequency in-phase ~~signals~~ signal;

a second mixer ~~means~~ coupled to said second signal output and second frequency output for generating a baseband frequency quadrature phase ~~signals~~ signal;

a first ~~filtering means~~ filter for the suppression of said in-phase ~~signals~~ signal centered at the zero frequency;

a second ~~filtering means~~ filter for the suppression of said quadrature ~~signals~~ signal centered at the zero frequency;

wherein the receiver is configured to provide a ~~local~~ oscillator frequency that is ~~set~~ equal to or about the carrier frequency plus an offset frequency, said offset frequency being equal to or about the difference between the carrier frequency and a null frequency, said null frequency centered at a notch of said sideband, for centering said notch at the zero frequency of said baseband signals through mixing.

3. (Currently Amended) A direct conversion receiver according to claim 2, ~~wherein for channel selection said receiver further comprises~~ further comprising a third ~~filtering means~~ filter for the suppression of said in-phase ~~signals~~ signal being greater than~~t~~ a set corner frequency; and a fourth ~~filtering means~~ filter for the suppression of said quadrature ~~signals~~ signal being greater than~~t~~ a set corner frequency.

4. (Currently Amended) A direct conversion receiver according to claim 2, wherein said first ~~filtering means~~ filter comprises a first AC coupling ~~means~~ element for producing a notch at the zero frequency of said in-phase signal; and said second ~~filtering means~~ filter comprises a second AC coupling ~~means~~ element for producing a notch at the zero frequency of said quadrature signal.

5. (Currently Amended) A direct conversion receiver according to claim 2, wherein said first filter and said second filter ~~filtering means~~ each comprise a high pass filter, the first

filter coupled to the output of ~~a~~ the first mixer and the second filter coupled to the output of the second mixer.

6. (Currently Amended) A direct conversion receiver according to claim 2, ~~wherein said receiver further comprises~~ further comprising a processor ~~system~~ for demodulation and processing said in-phase and quadrature signals and for controlling said ~~local~~ oscillator frequency.

7. (Currently Amended) A GPS direct conversion receiver for processing a signal, ~~phase modulated radio signals that are centered at a carrier frequency for receiving digital information, the phase modulation extending a sideband above and below the carrier frequency, the receiver~~ comprising:

a ~~means for receiving and~~ device for splitting said ~~signals~~ signal, said ~~means~~ device having a first signal output and a second signal output, wherein said signal is a phase modulated radio signal centered at a carrier frequency for receiving digital information, the phase modulation extending a sideband above and below the carrier frequency;

~~a local~~ an oscillator ~~means tuned to a local oscillator~~ for providing a frequency and having a first frequency output and a second frequency output, said second frequency output having a 90° phase shift compared with said first output;

a first mixer ~~means~~ coupled to said first signal output and first frequency output for generating a baseband frequency in-phase ~~signals~~ signal;

a second mixer ~~means~~ coupled to said second signal output and second frequency output for generating a baseband frequency quadrature phase ~~signals~~ signal;

a first ~~filtering means~~ filter for the suppression of said in-phase ~~signals~~ signal centered at the zero frequency;

a second ~~filtering means~~ filter for the suppression of said quadrature ~~signals~~ signal centered at the zero frequency;

wherein the receiver is configured to provide an ~~local~~ oscillator frequency that is ~~set~~ equal to or about the carrier frequency plus an offset frequency, said offset frequency being equal to or about ~~the~~a chip rate or a multiple of it for centering said ~~local~~ oscillator frequency at a notch of said sideband, and for centering said notch at the zero frequency of said baseband ~~signals~~ signal through mixing.

8. (Currently Amended) A GPS direct conversion receiver according to claim 7, wherein said first ~~filtering means~~ filter comprises a first high pass ~~filtering means~~ filter for producing a notch at the zero frequency of said in-phase signal; and said second ~~filtering means~~ filter comprises a second high pass ~~filtering means~~ filter for producing a notch at the zero frequency of said quadrature signal.

9. (Currently Amended) A method in a direct conversion receiver for processing a signal, ~~modulated radio signals that are centered at a carrier frequency, the modulation extending a~~

~~sideband above and below the carrier frequency, the method~~ comprising ~~the steps of~~:

~~receiving and~~ splitting said signal~~s~~ into a first signal output and a second signal output, said signal being modulated and centered at a carrier frequency, the modulation extending a sideband above and below the carrier frequency;

tuning ~~a local~~ an oscillator ~~frequency~~ for generating a first frequency output and a second frequency output, said second frequency output having a phase shift compared with said first frequency output;

mixing said first signal output and first frequency output for generating a baseband frequency in-phase ~~signals~~ signal;

mixing said second signal output and second frequency output for generating a baseband frequency quadrature phase ~~signals~~ signal;

filtering out an in-phase ~~signals~~ signal centered at the zero frequency; and

filtering out a quadrature ~~signals~~ signal centered at the zero frequency;

setting said ~~local~~ oscillator frequency equal to or about the carrier frequency plus an offset frequency, said offset frequency being equal to or about the difference between the carrier frequency and a null frequency, said null frequency being centered at a notch of said sideband; and

centering said notch at the zero frequency of said baseband signals through mixing.

10. (Currently Amended) A method according to claim 9, wherein the method further comprises:

~~the steps of~~ high pass filtering ~~—~~ said in-phase signal for producing a notch at the zero frequency of said in-phase signal; ~~—and~~

high pass filtering said quadrature signal for producing a notch at the zero frequency of said quadrature signal.

11. (Currently Amended) A method in a direct conversion receiver for processing a received ~~radio signals~~ signal, ~~that are modulated and centered at a carrier frequency, wherein the frequency spectrum of a received signal is characterized by a main lobe and side lobes with successive ones of the lobes being separated by spectral null points, the spectral null points being located at multiples of a chip rate of the received signal, the modulation extending a sideband above and below the carrier frequency, the method~~ comprising ~~the steps of~~:

mixing ~~a local~~ an oscillator frequency signal with said received ~~radio signals~~ signal for generating baseband frequency signals, wherein said received signal is modulated and centered at a carrier frequency, wherein a frequency spectrum of the received signal is characterized by a main lobe and side lobes with successive ones of the lobes being separated by spectral null points, the spectral

null points being located at multiples of a chip rate of the received signal, the modulation extending a sideband above and below the carrier frequency;

filtering out generated ~~disturbing~~ direct current (DC) components of said baseband signals centered at the zero frequency;

setting said ~~local~~ oscillator frequency signal equal to or about the carrier frequency plus an offset frequency, said offset frequency being equal to or about the difference between the carrier frequency and a null frequency of said received signal spectrum, said null frequency being centered at a notch of said sideband; and

centering said notch at the zero frequency of said baseband signals through mixing.

12. (Currently Amended) A direct conversion receiver for processing a received signal~~modulated radio signals that are centered at a carrier frequency, the modulation extending a sideband above and below said carrier frequency, wherein the frequency spectrum of a received signal is characterized by a main lobe and side lobes with successive ones of the lobes being separated by spectral null points, the spectral null points being located at multiples of a chip rate of the received signal~~, the receiver comprising:

a ~~means~~ splitter for ~~receiving and~~ splitting said ~~signals~~ signal, said ~~means~~ splitter having a first signal output and a second signal output, the received signal being a

modulated signal centered at a carrier frequency, the modulation extending a sideband above and below said carrier frequency, wherein a frequency spectrum of the received signal is characterized by a main lobe and side lobes with successive ones of the lobes being separated by spectral null points, the spectral null points being located at multiples of a chip rate of the received signal;

~~a local~~ an oscillator ~~means tuned to a local oscillator~~ for providing a frequency and having a first frequency output and a second frequency output, said second frequency output having a phase shift compared with said first frequency output;

a first mixer ~~means~~ coupled to said first signal output and first frequency output for generating a baseband frequency in-phase ~~signals~~ signal;

a second mixer ~~means~~ coupled to said second signal output and second frequency output for generating a baseband frequency quadrature phase ~~signals~~ signal;

a first ~~filtering means~~ filter for the suppression of said in-phase ~~signals~~ signal centered at the zero frequency;

a second ~~filtering means~~ filter for the suppression of said quadrature ~~signals~~ signal centered at the zero frequency;

wherein the receiver is configured for providing an ~~local~~ oscillator frequency that is ~~set~~ equal to or about the carrier frequency plus an offset frequency, said offset frequency being equal to or about ~~the~~a difference between

the carrier frequency and a null frequency of said received signal spectrum, said null frequency being centered at a notch of said sideband, for centering said notch at the zero frequency of said baseband signals through mixing.

13. (Currently Amended) A receiver for processing a signal ~~modulated radio signals that are centered at a carrier frequency, the modulation extending a sideband above and below said carrier frequency~~, the receiver comprising:

~~an antenna, an amplifier and~~ a divider for ~~receiving and~~ splitting said ~~signals~~ signal, said divider having a first signal output and a second signal output, wherein the signal is a modulated signal centered at a carrier frequency, the modulation extending a sideband above and below said carrier frequency;

~~a local~~ an oscillator ~~tuned to a local oscillator~~ for providing a frequency and having a first frequency output and a second frequency output, said second frequency output having a phase shift compared with said first output;

a first mixer coupled to said first signal output and said first frequency output for generating a baseband frequency in-phase ~~signals~~ signal;

a second mixer coupled to said second signal output and second frequency output for generating a baseband frequency quadrature phase ~~signals~~ signal;

a first filter for the suppression of said in-phase ~~signals~~ signal centered at the zero frequency;

a second filter for the suppression of said quadrature ~~signals~~ signal centered at the zero frequency;

wherein the receiver is configured for providing an ~~local~~ oscillator frequency that is ~~set~~ equal to or about the carrier frequency plus an offset frequency, said offset frequency being equal to or about the difference between the carrier frequency and a null frequency, said null frequency being centered at a notch of said sideband, for centering said notch at the zero frequency of said baseband signals through mixing.

14. (Currently Amended) A receiver according to claim 13, wherein, for channel selection, said receiver further comprises a third filter for the suppression of said in-phase ~~signals~~ signal being greater than a set corner frequency; and a fourth filter for the suppression of said quadrature ~~signals~~ signal being greater than a set corner frequency.

15. (Previously Presented) A receiver according to claim 13, wherein said first filter comprises a first AC coupling for producing a notch at the zero frequency of said in-phase signal; and said second filter comprises a second AC coupling for producing a notch at the zero frequency of said quadrature signal.

16. (Currently Amended) A receiver according to claim 13, wherein said ~~fist~~ first filter and the second filter~~s~~ each comprise a high pass filter, the first filter coupled to the output of ~~a~~the first mixer and the second filter coupled to the output of the second mixer.

17. (Currently Amended) A receiver according to claim 13, wherein said receiver further comprises a processor ~~system~~ for demodulation and processing said in-phase and quadrature signals and for controlling said ~~local~~ oscillator frequency.

18. (Currently Amended) A receiver for processing a received signal, ~~modulated radio signals that are centered at a carrier frequency, the modulation extending a sideband above and below said carrier frequency, wherein the frequency spectrum of a received signal is characterized by a main lobe and side lobes with successive ones of the lobes being separated by spectral null points, the spectral null points being located at multiples of a chip rate of the received signal,~~ the receiver comprising:

~~an antenna, an amplifier and a~~ ~~divisor~~ divider for ~~receiving and~~ splitting said ~~signals~~received signal, said received signal being a modulated signal that is centered at a carrier frequency, the modulation extending a sideband above and below said carrier frequency, wherein a frequency spectrum of the received signal is characterized by a main lobe and side lobes with successive ones of the lobes being separated by spectral null points, the spectral null points being located at multiples of a chip rate of the received

signal, said divider having a first signal output and a second signal output;

~~a local~~ an oscillator ~~tuned to a local oscillator~~ for providing a frequency and having a first frequency output and a second frequency output, said second frequency output having a phase shift compared with said first frequency output;

a first mixer coupled to said first signal output and said first frequency output for generating a baseband frequency in-phase ~~signals~~ signal;

a second mixer coupled to said second signal output and said second frequency output for generating a baseband frequency quadrature phase ~~signals~~ signal;

a first filter for the suppression of said in-phase ~~signals~~ signal centered at the zero frequency;

a second filter for the suppression of said quadrature ~~signals~~ signal centered at the zero frequency;

wherein the receiver is configured for providing an ~~local~~ oscillator frequency that is ~~set~~ equal to or about the carrier frequency plus an offset frequency, said offset frequency being equal to or about a~~the~~ difference between the carrier frequency and a null frequency of said received signal spectrum, said null frequency centered at a notch of said sideband, for centering said notch at the zero frequency of said baseband signals through mixing.

19. (New) A direct conversion receiver comprising:

means for mixing an oscillator frequency signal with a received signal that is modulated and centered at a carrier frequency, the modulation extending a sideband above and below the carrier frequency, for generating baseband frequency signals;

means for filtering generated direct current components of the generated baseband frequency signals centered at a zero frequency;

means for adjusting the oscillator frequency to a frequency that is substantially equal to the carrier frequency and an offset frequency, the offset frequency being substantially equal to a difference between the carrier frequency and a null frequency that is centered at a notch of the sideband; and

means for centering the notch at the zero frequency of the baseband signals.

20. (New) The receiver of claim 19 further comprising:

means for filtering a portion of the in-phase signal that is greater than a set corner frequency; and

means for filtering a portion of the quadrature signal that is greater than a set corner frequency.

21. (New) The receiver of claim 19 further comprising:

means for producing a notch at the zero frequency of the in-phase signal; and

means for producing a notch at the zero frequency of the quadrature signal.